

Comparisons of Job Characteristics

Focus Occupation: Maintenance and Repair Workers, General (49-9042)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 86

Focus Occupation: Maintenance and Repair Workers, General (49-9042)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mechanical	6.8	20.1	19.3	0 Current knowledge level may be sufficient
Building and Construction	4.0	12.5	14.3	> Current knowledge level is likely sufficient
Physics	4.3	11.4	8.8	<< Extensive education and/or training may be required
Engineering and Technology	5.7	11.1	10.3	0 Current knowledge level may be sufficient
Design	5.2	10.3	11.7	> Current knowledge level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 87

Focus Occupation: Maintenance and Repair Workers, General (49-9042)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Repairing	3.4	13.5	12.3	0 Current skill level may be sufficient
Troubleshooting	4.5	13.3	10.0	<< Extensive development of skills in this area may be required
Installation	1.7	12.6	8.3	<< Extensive development of skills in this area may be required
Equipment Maintenance	3.5	12.3	12.7	0 Current skill level may be sufficient
Operation Monitoring	6.6	11.4	8.4	<< Extensive development of skills in this area may be required
Quality Control Analysis	5.9	11.2	9.8	< A higher skill level may be required
Operation and Control	5.4	10.9	7.6	<< Extensive development of skills in this area may be required

Equipment Selection	3.3	9.4	9.5	0	Current skill level may be sufficient
---------------------	-----	-----	-----	---	---------------------------------------

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 88			
Focus Occupation: Maintenance and Repair Workers, General (49-9042)					
Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Visualization	7.5	12.4	11.0	<	Some improvement in abilities may be required
Extent Flexibility	4.8	11.8	9.2	<	Some improvement in abilities may be required
Visual Color Discrimination	6.4	10.3	8.5	<	Some improvement in abilities may be required
Hearing Sensitivity	5.6	10.0	7.0	<<	Extensive improvement in abilities may be required
Static Strength	5.0	10.0	9.8	0	Current ability level may be sufficient
Gross Body Coordination	3.9	7.4	5.8	<	Some improvement in abilities may be required
Gross Body Equilibrium	3.2	7.1	5.6	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 94
Focus Occupation: Maintenance and Repair Workers, General (49-9042) Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)		
Work Activities	Exclusivity of Activity	
Adhere to safety procedures	12	
Adjust or set mechanical controls or components	69	
Align or adjust clearances of mechanical components or parts	72	
Apply cleaning solvents	41	
Assemble and install pipe sections, fittings, or plumbing fixtures	71	
Assemble, dismantle, or reassemble equipment or machinery	70	
Bend tubing or conduit	81	
Conduct tests to locate mechanical system malfunction	71	
Control HVAC equipment	89	
Cut, bend, or thread pipe for gas, air, hydraulic, or water lines	84	
Determine installation, service, or repair needed	58	
Diagnose mechanical problems in machinery or equipment	65	
Estimate time or cost for installation, repair, or construction projects	54	

Fabricate sheet metal parts or items	80
Fabricate, assemble, or disassemble manufactured products by hand	11
Identify properties of metals for repair or fabrication activities	71
Inspect machinery or equipment to determine adjustments or repairs needed	42
Install electrical fixtures or components	71
Install electronic equipment, components, or systems	62
Install equipment or attachments on machinery or related structures	48
Install insulating materials	81
Install or replace meters, regulators, or related measuring or control devices	66
Install/connect electrical equipment to power circuit	57
Install/string electrical or electronic cable or wiring	76
Lubricate machinery, equipment, or parts	59
Maintain or repair industrial or related equipment/machinery	39
Maintain or repair work tools or equipment	81
Maintain repair records	65
Maintain welding machines or equipment	70
Measure and mark reference points or cutting lines on workpieces	66
Move or fit heavy objects	8
Observe or listen to machinery or equipment operation to detect malfunctions	81
Operate hoist, winch, or hydraulic boom	34
Order or purchase supplies, materials, or equipment	35
Perform safety inspections in industrial, manufacturing or repair setting	32
Position, align, or level machines, equipment, or structures	74
Pressure test piping system or equipment for leaks	89
Read blueprints	10
Read schematics	34
Read specifications	23
Read technical drawings	7
Read work order, instructions, formulas, or processing charts	9
Repair or adjust measuring or control devices	71
Repair or replace electrical wiring, circuits, fixtures, or equipment	49
Repair or replace gas, steam, sewer, or water piping or fixtures	82
Repair or replace malfunctioning or worn mechanical components	62
Replace electronic components	63
Solder electrical or electronic connections or components	55
Test electrical/electronic wiring, equipment, systems or fixtures	54
Test mechanical products or equipment	56
Understand service or repair manuals	40
Understand technical operating, service or repair manuals	6
Use acetylene welding/cutting torch	54
Use arc welding equipment	62
Use basic carpentry techniques	62
Use basic plumbing techniques	72
Use combination welding procedures	68
Use electrical or electronic test devices or equipment	40
Use hand or power tools	2
Use hand or power woodworking tools	65
Use high voltage apparatus	76

Use knowledge of metric system	39
Use knowledge of ventilation systems	89
Use knowledge of welding filler rod types	75
Use pipe fitting equipment	80
Use precision measuring devices in mechanical repair work	61
Use precision tools in electronics repair	71
Use pressure gauges	76
Use soldering equipment	44
Use tube bending equipment	95
Use voltmeter, ammeter, or ohmmeter	52
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 86

Focus Occupation: Maintenance and Repair Workers, General (49-9042)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Tools and Technologies	Exclusivity
Business function specific software	1
Cleaning equipment	11
Compressors	9
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Cutting tools	18
Dispensing tools	6
Earth moving machinery	11
Electrical measuring and testing equipment	7
Fall protection	16
Forming tools	2
Garden tools	12
Holding and clamping tools	3
Indicating and recording instruments	2
Industrial trucks	10
Industry specific software	1
Information exchange software	1
Ladders and scaffolding	6
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Marking tools	11
Measuring and layout tools	3
Mechanical instruments	14

Metal bending and forming machinery	17
Network applications software	1
Personal communication devices	2
Power tools	2
Prying and bending tools	10
Pulling tools	31
Pumps	9
Respiratory protection	6
Rough and finishing tools	5
Safety apparel	4
Sampling equipment	12
Sealing tools	21
Soldering and brazing and welding machinery and supplies	6
Special tooling fixtures	16
Surveillance and detection equipment	11
Tool attachments and accessories	12
Viewing and observing instruments and accessories	4
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.